

D O R I A N A

Supplemento agli

ANNALI DEL MUSEO CIVICO DI STORIA NATURALE "G. DORIA"

G E N O V A

Vol. VI - N. 256

9 - I - 1986

CESARE CONCI * & LIVIO TAMANINI **

CACOPSYLLA PROPINQUA, FROM VALLE D'AOSTA,
NEW FOR ITALY

(HOMOPTERA PSYLLOIDEA)

1. INTRODUCTION

The collection of a considerable number of specimens of *Cacopsylla propinqua* (Schäfer, 1949) by Dr. Roberto Poggi in Valle d'Aosta (NW Italy) enables us to examine this interesting species, with distribution both boreoalpine and caucasian-centralasiatic.

The species was described and illustrated, as *Psylla*, by SCHAEFER (1949: 37-41, figs. 14-21) on specimens collected in Valais (Switzerland), at 1700-2000 m. The same species was subsequently examined by VONDRACEK (1957: 233-236, figs. 128-129; 1959: 10-11), by LOGINOVA in her keys (1964: 472, figs. 215: 23-25; 1967b: 595, figs. 215: 23-25) and also by LOGINOVA (1967a: 435, 445, 452-453, 456, figs. 56-61).

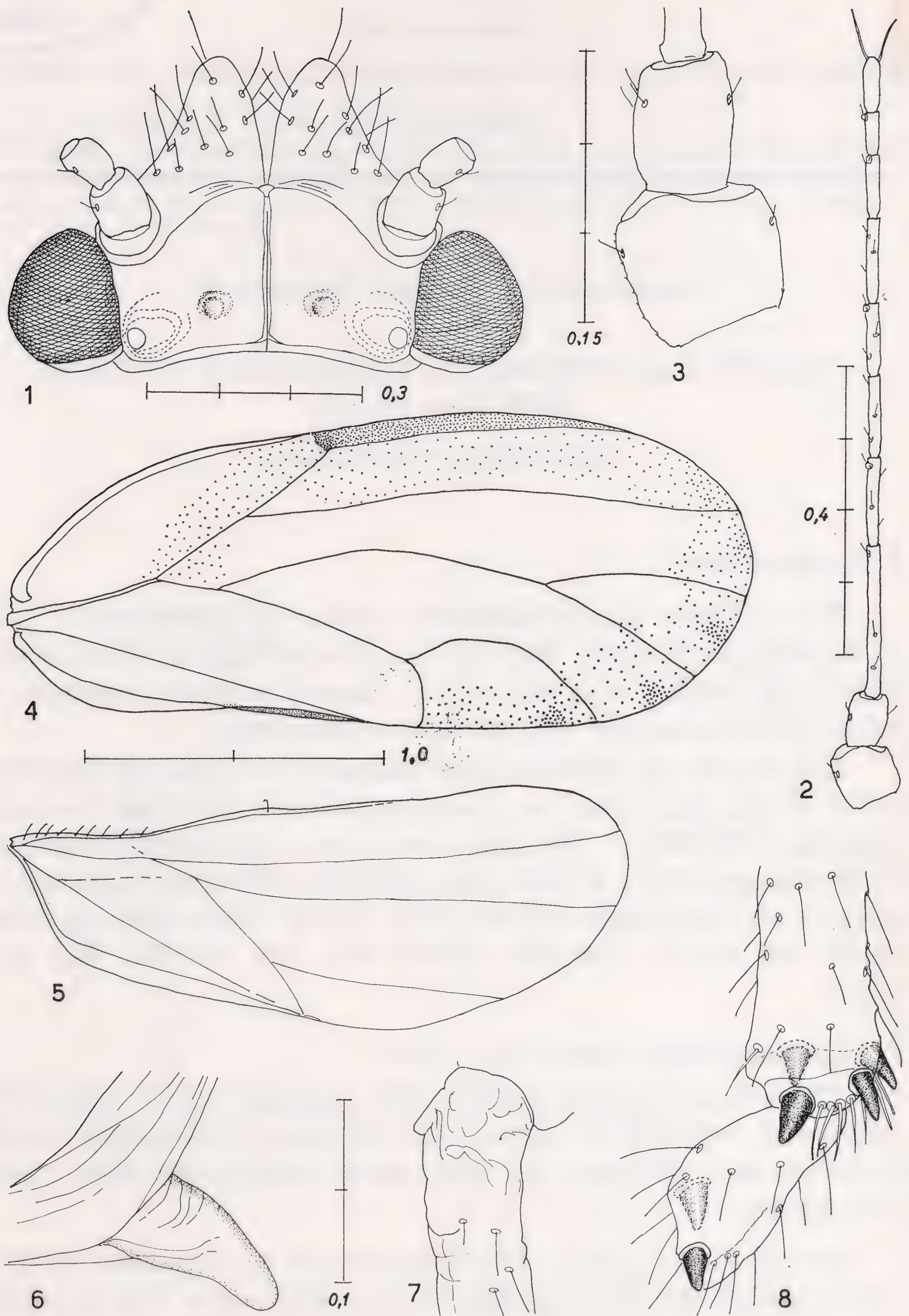
2. MORPHOLOGICAL NOTES (figs. 1-16)

The long and exact description of *C. propinqua* by SCHAEFER 1949 corresponds well with our material and therefore a redescription would be unnecessary. However, we think useful to give new figures with new details.

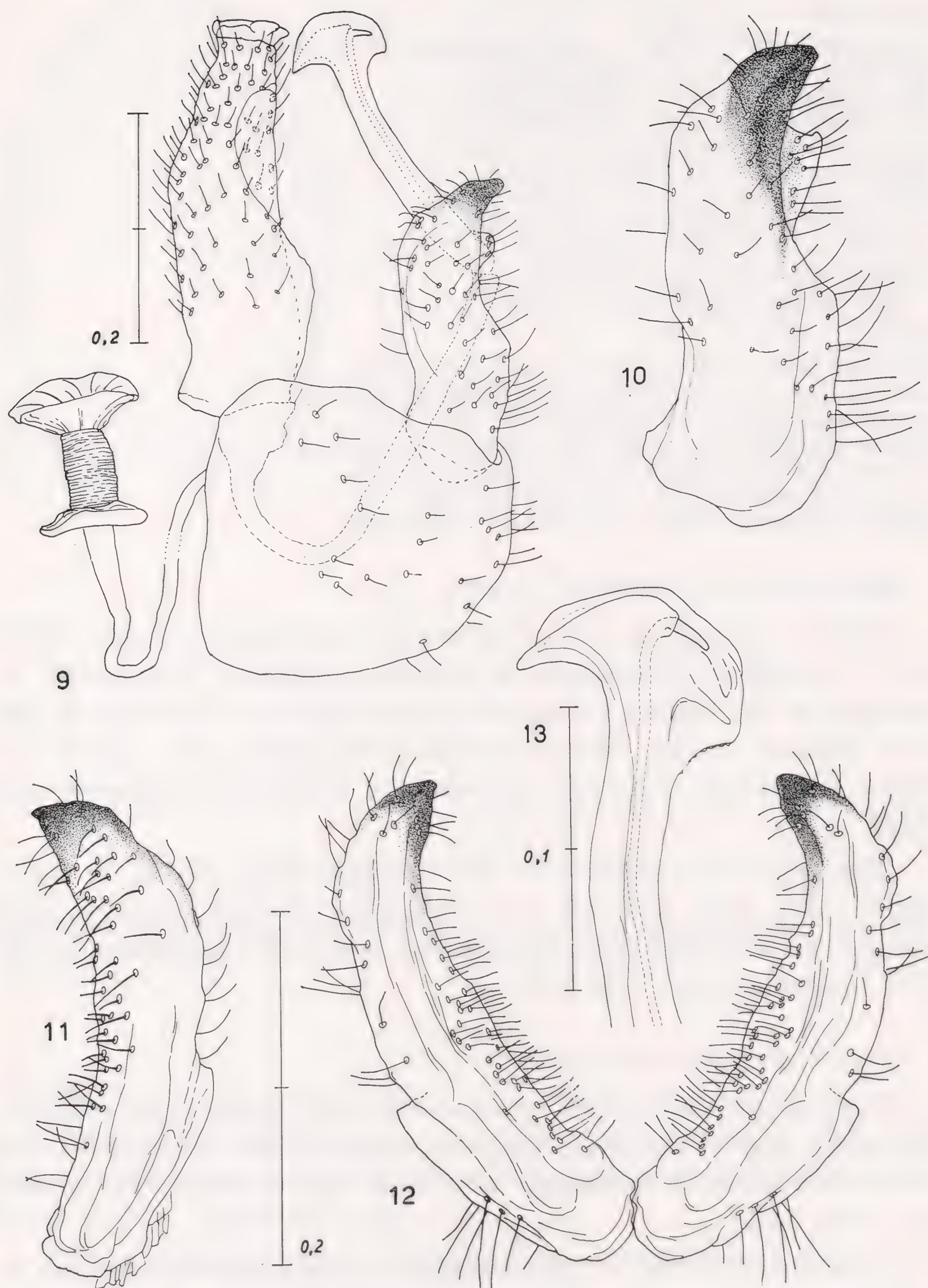
M e a s u r e m e n t s . The measurements of a hundred of specimens give us the following data, in mm, which agree with SCHAEFER

(*) Museo Civico di Storia Naturale, Corso Venezia 55, 20121 Milano.

(**) Musei Civici, Via Calcinari 18, 38068 Rovereto (Trento).



Cacopsylla (Hepatopsylla) propinqua – Fig. 1: ♀ head. – Fig. 2: antenna. – Fig. 3: basal segment of antenna. – Fig. 4: ♂ forewing; it is marked with spots only the lower microsculpture. – Fig. 5: hind wing. – Fig. 6: ♀ meracanthus. – Fig. 7: ♀ base of metatibia. – Fig. 8: ♀ apex of metatibia and tarsus.



Cacopsylla (Hepatopsylla) propinqua – Fig. 9: ♂ genito-anal complex, lateral. - Fig. 10: left paramere, outer. - Fig. 11: same, inner. - Fig. 12: parameres connected, posterior. - Fig. 13: penis.

1949, with larger variability, owing to the larger number of examined specimens:

total length (body + wings in resting position): ♂♂ 2.3-2.8; ♀♀ 2.6-2.9.
 head width: ♂♂ 0.62-0.71; ♀♀ 0.66-0.71;
 vertex length: ♂♂ 0.19-0.23; ♀♀ 0.20-0.23;
 vertex width: ♂♂ 0.37-0.45; ♀♀ 0.39-0.43;
 genal cones length: ♂♂ 0.15-0.17; ♀♀ 0.15-0.19;
 antennal length: ♂♂ 0.82-0.97; ♀♀ 0.82-0.86;
 forewing length: ♂♂ 1.92-2.23; ♀♀ 2.07-2.27;
 forewing width: ♂♂ 0.78-0.94; ♀♀ 0.90-0.98;
 cu₁ length: ♂♂ 0.36-0.45; ♀♀ 0.39-0.47;
 cu₁ height: ♂♂ 0.23-0.27; ♀♀ 0.23-0.27;
 proctiger length: ♂♂ 0.31-0.33; ♀♀ 0.63-0.70.

Ratios:

body length/head width: ♂♂ 3.77-4.00; ♀♀ 3.70-4.20;
 genal cones length/vertex length: ♂♂ 0.66-0.80; ♀♀ 0.80-1.0;
 antennal length/head width: ♂♂ 1.28-1.38; ♀♀ 1.22-1.25;
 forewing length/forewing width: ♂♂ 2.22-2.47; ♀♀ 2.19-2.39;
 forewing length/head width: ♂♂ 3.09-3.20; ♀♀ 2.94-3.22.
 cu₁ length/cu₁ height: ♂♂ 1.65-1.83; ♀♀ 1.54-1.80;
 proctiger length/head width: ♂♂ 0.47-0.50; ♀♀ 0.94-1.05.

3. PREIMAGINAL STAGES (figs. 17-18)

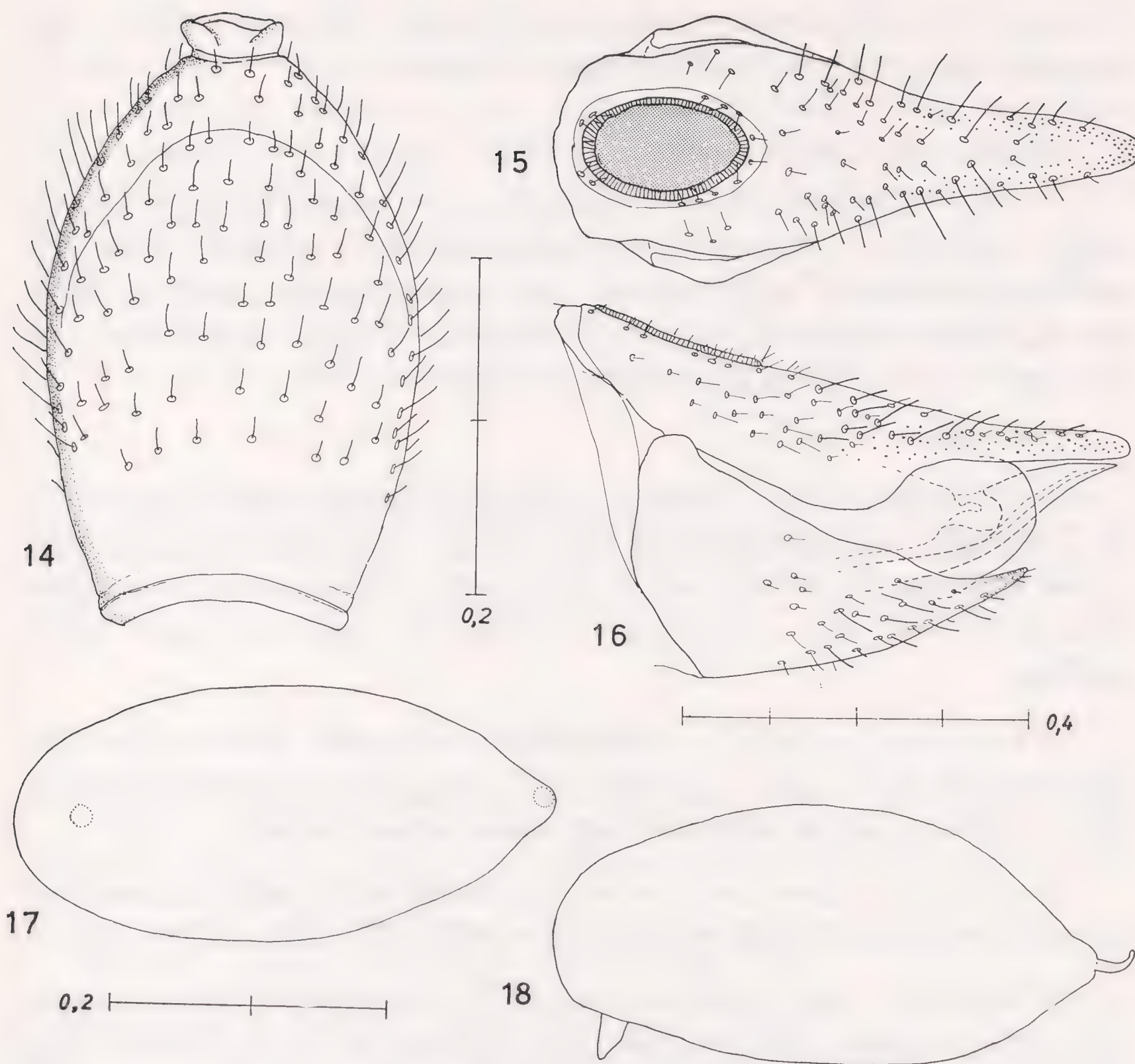
The V preimaginal instar was reported by OSSIANNILSSON 1970: 143 in the key of the nymphs of Swedish *Psylla* s.l. The nymph of *propinqua* is very similar to *moscovita*, and differs for the length of the IV-V antennal articles. WHITE & HODKINSON (1928: 31) did not recognize differential characters between the nymphs of *moscovita* and *saliceti*.

The egg is here figured for the first time (figs. 17-18). It has a regular form, short peduncle and micropyle. Measurements, in mm: total length 0.39-0.40; greatest diameter 0.17-0.20; micropyle length 0.03; peduncle length 0.03-0.04.

4. HOST PLANT AND LIFE HISTORY

C. propinqua was cited by SCHAEFER 1949 from *Salix helvetica* and « *Salix glauca* », and by OSSIANNILSSON (1963a: 254; 1963b: 20; 1972: 95) from *Salix lapponum*. The remaining literature does not report other data.

Salix helvetica Vill. is now considered a valid species, endemic to the Alps and with scarce findings in Czechoslovakia and Poland (according to TUTIN 1964: 52; JALAS & SUOMINEN 1976: 41, map 251; PIGNATTI 1982: 103). Previously it was retained as a subspecies of *Salix lapponum*.



Cacopsylla (Hepatopsylla) propinqua – Fig. 14: ♂ proctiger, anterior surface. - Fig. 15: ♀ genito-anal complex, dorsal. - Fig. 16: same, lateral. - Fig. 17: egg, dorsal. - Fig. 18: same, lateral.

« *Salix glauca* » Auct. nec L. (now *Salix glaucosericea* Flod) is now considered a valid species, endemic to the Alps (TUTIN 1964: 47; JALAS & SUOMINEN 1976: 22, map 217; PIGNATTI 1982: 98). *Salix glauca* L. is a Northern species.

Salix lapponum L. is a species with a very large distribution; it is very widespread in N. Europe, Asia and America and also present in Scotland, France, Central and Oriental Europe (JALAS & SUOMINEN 1976: 41, map 251).

As regards the life history, the literature reports few data: findings

of adults from the end of June to September. LOGINOVA 1967a: 456 reports with a « ? » the overwintering as adult.

5. DISTRIBUTION

I t a l y : Valle d'Aosta, Valtournenche, Cheneil, m 2300, leg. R. Poggi 16.VII.84, 32 ♂♂, 34 ♀♀, on *Salix helvetica*; idem, m 2500, leg. R. Poggi 14.VII.84, 13 ♂♂, 65 ♀♀, on *Salix helvetica*; idem, m 2000, leg. C. Conci 10.VII.56, 1 ♂, 2 ♀♀. Cheneil is only about 80 km far from the two nearly Swiss localities of Valais.

B e s i d e s I t a l y :

S w i t z e r l a n d , Valais (= Wallis), Binntal and Aletschwald, m 1700-2000, 84 specimens: of these 20 on *Salix helvetica* and 6 on « *Salix glauca* », from the end of July to the beginning of September (SCHAEFER 1949: 41). BURCKHARDT (1983: 63) does not report other findings.

C z e c h o s l o v a k i a , Slovenia, « Godierská dolina (Stehlík) » (VONDRACEK 1957: 236). LAUTERER 1977: 99, however, reports Slovenia with a question mark and does not report other findings.

N o r w a y , some localities in the North and South regions (OSIANNILSSON 1943: 34, 38, sub *saliceti*; 1963b: 201, 204; 1974: 32).

S w e d e n , some localities in the North regions (OSIANNILSSON 1972: 95), on *Salix lapponum*; also the localities in North Sweden cited sub *saliceti* by OSIANNILSSON (1951: 55; 1952: 198-199 n. 46) are to be referred to *propinqua* (OSIANNILSSON 1963a: 254; 1963b: 201, 204).

F i n l a n d , Finnish Lapland, Kilpisjärvi, June, August, September (MEINANDER 1972: 89).

U S S R . North European USSR (LOGINOVA 1964: 472; 1967b: 435). South Caucasus (GEGECHKORY 1984: 152) in the table. Altai (LOGINOVA 1967a: 456) in the table.

The report of *C. propinqua* for Great Britain on *Salix repens* (HESLOP-HARRISON 1951: 670-671) is to be referred to *C. moscovita* (OSIANNILSSON 1963a: 254; HODKINSON & WHITE 1979: 13).

6. AFFINITIES

C. propinqua belongs to Subgenus *Hepatopsylla* (according to LOGINOVA 1978a: 822; 1978b: 565) and to the « *iteophila* » group (LOGI-

NOVA 1967a: 452-453, 455). *C. propinqua* is morphologically similar to *C. saliceti*, but much more to *C. moscovita*: also its name is related to this affinity. *C. moscovita* (syn. *klapaleki* Schaefer, 1949, nec Sulc, 1909; *schaeferi* Vondracek, 1959) is an Eurosiberian species, with a very wide distribution, from England to Kamchatka, but till now it was not collected in Italy; host plant, according to the literature: *Salix aurita*, *caprea*, *cinerea*, *repens* and *rosmarinifolia*. *C. propinqua* differs from *moscovita*, besides other characters, for the shorter genal cones, the form of the parameres and the shorter proctiger of the female.

7. Acknowledgements. We thank: Dr. Roberto Poggi, Curator of the Museo Civico di Storia Naturale, Genova, who collected and gave us the specimens for the study; Dr. Pavel Lauterer, of the Moravské Museum, Brno, for kindly sending us specimens of *C. moscovita*; Dr. Carlo Violani for his valid co-operation in the English translation.

REFERENCES

- BURCKHARDT D., 1983 - Beiträge zur Systematik und Faunistik der schweizerischen Psyllodea - *Entomologica basiliensia*, Basel, **8**: 43-83, 42 figs.
- GEGECHKORI A.M., 1984 - Psyllodea of Caucasus - *Akad. Nauk SSR*, Tbilisi: 1-296, 21 tabs., 23 figs., 16 pls. (In Russian).
- HESLOP-HARRISON G., 1951 - Notes on Scandinavian Psyllidae. Part I - *Ann. Mag. nat. Hist.*, London, Ser. XII, **4**: 657-672, 1 fig., 1 pl.
- HODKINSON I.D. & WHITE I.M., 1979 - Homoptera Psylloidea - Handbooks Ident. Br. Insects, *R. ent. Soc. London*, **2** (5a): 1-98, 321 figs.
- JALAS J. & SUOMINEN J., 1976 - Atlas Florae Europaeae - Helsinki, **3**: 1-128, maps 201-383.
- LAUTERER P., 1977 - Enumeratio Insectorum Bohemoslovakiae. Check list. Tschechoslovakische Insektenfauna, 1, Psyllodea - *Acta faun. ent. Musei nat. Prague*, **15** (Suppl. 4): 97-100.
- LOGINOVA M.M., 1964 - Suborder Psyllinea - In: BEI BIENKO G. Ya. (Ed.), Keys to the insects of the European part of the U.S.S.R. - *Zool. Inst. Akad. Nauk SSR*, Moscow, **1**: 437-482, figs. 199-220 (In Russian).
- LOGINOVA M.M., 1967b - Idem, English translation - Israel Programme Scientific Translations, Jerusalem: 551-608, figs. 199-220.
- LOGINOVA M.M., 1967a - Review on Palearctic psyllids of the genus *Psylla* Geoffr., associated with willows - *Annales zool.*, Warszawa, **24**: 427-461, 61 figs. (In Russian).
- LOGINOVA M.M., 1978a - Classification of the genus *Psylla* Geoffr. - *Ent. Obozr.*, Leningrad, **57**: 808-824, 49 figs. (In Russian).
- LOGINOVA M.M., 1978b - Idem, English translation - *Ent. Review*, Washington, **57**: 555-566, 49 figs.
- MEINANDER M., 1972 - The invertebrate fauna of the Kilpisjärvi area, Finnish Lapland. 7. Hemiptera - *Acta Soc. Fauna Fl. fenn.*, Helsingfors, **80**: 67-92, 1 fig.
- OSSIANNILSSON F., 1943 (1942) - The Hemiptera of the Tromsø Museum - *Tromsø Museums Arshefter, Naturhist. Avd.*, **65** (1), n. 28: 1-38, 7 figs.

- OSSIANNILSSON F., 1951 - Hemiptera - In: BRINCK & WINGSTRAND - The Mountain Fauna of the Virihaure area in Swedish Lapland. II - *Lunds Univ. Arsskrift*, NF, Avd. **2**, Bd. 46, n. 2: 51-59.
- OSSIANNILSSON F., 1952 - Catalogus Insectorum Sueciae. XII. Hemiptera Homoptera Psylloidea - *Opusc. ent.*, Lund, **17**: 193-200, 1 fig.
- OSSIANNILSSON F., 1963a - Notes on British Psyllids - *Entomologist*, London, **96**: 249-257, 4 figs., 1 pl.
- OSSIANNILSSON F., 1963b - Bidrag till kännedomen om svenska bladloppor - *Opusc. ent.*, Lund, **28**: 201-204.
- OSSIANNILSSON F., 1970 - Contribution to the knowledge of Swedish Psyllids. 1-4 - *Entomologica scand.*, Stockholm, **1**: 135-144, 20 figs.
- OSSIANNILSSON F., 1972 - Till kännedomen om Abiskotraktens Hemiptera - *Ent Tidskr.*, Stockholm, **93**: 88-99.
- OSSIANNILSSON F., 1974 - Fauna of the Hardangervidda no 5. Hemiptera - Zool. Museum, University Bergen: 13-35, 8 figs.
- PIGNATTI S., 1982 - Flora d'Italia - Edagricole, Bologna, vol. I.
- SCHAEFER H.A., 1949 - Beiträge zur Kenntnis der Psylliden der Schweiz - *Mitt. schweiz. ent. Ges.*, Lausanne, **22**: 1-96, 40 figs.
- TUTIN T.G., etc. (Ed.), 1964 - Flora europaea - Cambridge, 1:1-464.
- VONDRACEK K., 1957 - Mery-Psilloidea - Fauna CSR, Praha, 9: 1-432, 265 figs.
- VONDRACEK K., 1959 - Zur Validitätsfrage der Art *Psylla klapaleki* Sulc 1909 - *Acta faun. ent. Musei nat. Pragae*, **5** (38): 1-14, 3 figs.
- WHITE I.M. & HODKINSON I.D., 1982 - Psylloidea (Nymphal Stages) - Handbooks Ident. Br. Insects, *R. ent. Soc. London*, **2** (5b): 1-50, 174 figs.

RIASSUNTO

Cacopsylla propinqua in Valle d'Aosta, nuova per l'Italia (Homoptera Psylloidea).

Viene trattata, con 18 figure di dettagli, la *Cacopsylla* (*Hepatopsylla*) *propinqua* (Schäfer, 1949), interessante specie a distribuzione boreoalpina e caucasico-centroasiatica, rinvenuta numerosa a Cheneil (Valle d'Aosta), tra 2000 e 2500 m, su *Salix helvetica*.

ABSTRACT

Cacopsylla propinqua, from Valle d'Aosta, new for Italy (Homoptera Psylloidea).

Cacopsylla (*Hepatopsylla*) *propinqua* (Schäfer, 1949), a species with distribution both boreoalpine and caucasian-centralasiatic, is examined, on numerous specimens found at Cheneil (Valle d'Aosta, NW Italy) between 2000 and 2500 m, on *Salix helvetica*. Eighteen illustrations of details are given.